

Project Brief

Title: World Happiness Report

Source: <https://www.kaggle.com/datasets/unsdsn/world-happiness>

Introduction:

The World Happiness Report is a comprehensive survey that assesses the state of global happiness, ranking 155 countries based on their happiness levels. The evaluation considers six key factors: economic production, social support, life expectancy, freedom, absence of corruption, and generosity.

Key Variables:

Economy (GDP per Capita): Measures the economic contribution to happiness.

Social Support (Family): Examines the impact of social connections on happiness.

Life Expectancy(Health): Reflects the influence of health and longevity on happiness.

Freedom: Assesses the contribution of freedom to overall happiness.

Absence of Corruption (Trust): Measures the impact of corruption on happiness.

Generosity: Evaluates the role of generosity in contributing to happiness.

The World Happiness Report provides a nuanced understanding of global happiness, emphasizing the multifaceted contributors to well-being. Exploring the rankings, factors, and temporal changes allows for valuable insights into the evolving landscape of happiness worldwide.

Data Profile:

Number of rows: 626

Number of columns: 10

Column	Data Type	Unique Values
country	object	170
happiness_rank	int64	158
happiness_score	float64	593
economy	float64	612
family	float64	612
health	float64	582
freedom	float64	591
trust	float64	575
generosity	float64	584
year	int64	4

Summary statistics:

Column	Mean	Standard deviation	Min	Max
happiness_rank	78,74	45,21	1,0	158,0
happiness_score	5,37	1,13	2,69	7,76
economy	0,92	0,41	0,0	1,87
family	1,04	0,32	0,0	1,62
health	0,61	0,24	0,0	1,14
freedom	0,40	0,14	0,0	0,66
trust	0,12	0,10	0,0	0,55
generosity	0,22	0,12	0,0	0,83

8. Consider limitations and ethics

Limitations:

Subjectivity of Happiness: The concept of happiness is subjective and culturally dependent. Responses to surveys about happiness may be influenced by cultural, social, and personal factors, leading to variations in interpretation.

Sampling Bias: The data is collected through surveys, and the sampling process may introduce bias. Some populations may be underrepresented, and the sampling method may not capture the full diversity of a country's population.

Temporal Variability: Happiness is dynamic and can be influenced by various factors. The snapshot nature of the data may not fully capture changes or trends over time.

Simplification of Factors: The happiness scores are based on a set of factors like economic production, social support, and freedom. However, these factors may oversimplify the complex nature of happiness and well-being.

Ethical Considerations:

Informed Consent: It's important to ensure that survey participants have given informed consent for their data to be used in research. Ethical data collection involves transparency about the purpose of data collection and how the data will be used.

Privacy and Anonymity: Protecting the privacy of survey respondents is crucial. The data should be anonymized and aggregated to prevent the identification of individuals.

Fair Treatment of Participants: Researchers should ensure fair treatment of survey participants and avoid exploiting vulnerable populations. The use of data should contribute to the common good without causing harm to individuals or groups.

Transparency in Analysis: Researchers should be transparent about their data analysis methods, including any transformations or interpretations made to the raw data.

Responsible Data Sharing: If the dataset is shared or used by other researchers, ethical considerations include ensuring that the data is used for legitimate research purposes and that proper credit is given to the original data source.

Avoiding Bias in Interpretation: Researchers should be aware of their own biases and avoid drawing conclusions that could perpetuate stereotypes or unfairly stigmatize certain populations.

10. Define questions to explore

1. How has the global happiness score changed over the years?
2. How do economic factors (GDP per capita) correlate with happiness scores?
3. Which factors (e.g., family, health, freedom) contribute most to happiness across different regions?
4. Identify the top and bottom countries in terms of happiness scores for each year.
5. Explore the factors that contribute to the happiness of specific countries.
6. Analyze how individual countries' happiness scores have changed over the years.
7. Identify countries that have experienced significant increases or decreases in happiness.
8. Explore the correlations between different factors (e.g., health, freedom, trust) and overall happiness scores.
9. Investigate how changes in one factor may impact overall happiness.
10. Investigate the impact of social support on happiness scores.
11. Identify countries where strong social support significantly contributes to happiness.